

NOTES ON THE BREEDING HABITS OF THE AMERICAN EARED GREBE (*DYTES NIGRICOLLIS CALIFORNICUS*).

BY N. S. GOSS.

JUNE 4, 1877, I had the pleasure of finding about one hundred pairs of these birds nesting in a little cove of Como Lake — a small alkali lake without outlet, in the Territory of Wyoming, on the line of the Union Pacific Railway; altitude 6680 feet. The nests were in a narrow strip of rushes, growing in water eighteen inches deep, and about one hundred and thirty feet from the shore; between the rushes and the shore was a heavy growth of coarse, marsh grass, the whole covering not over from one to one and one-half acres in area. The bank being a little higher than the ground back of it, the approach could be made unobserved, and my appearance, so unexpected and near, gave the birds no time to cover their eggs, as is their wont, giving me a fine opportunity, on wading out, to see the eggs in their nests. I collected the eggs from two nests, five in each; and counted from where I stood over twenty nests, with from one to five eggs each. Quite a number of others were completed, but without eggs, and still others were building. The floating nests were made of old broken rushes, weeds, and debris from the bottom, and were partially filled in and around the standing, growing rushes. There were no feathers or other kind of lining. They were from five to ten inches in diameter; the outer edge or rim was from two to three inches above the water. The eggs in several touched the water, and were more or less stained in their wet beds. The color of the eggs when fresh was white, with a slight bluish shade. The average measurements of the ten eggs was 1.81 by 1.20 inches. I watched the birds closely during the three days I remained there. Those out upon the lake were noisy and active, keeping near the centre and closely together. It was their courtship and mating ground, but the birds in going to and from their nesting places were silent and watchful. In leaving their nests they would dive and come up quite a distance away and swim rapidly for the flock in the lake. I noticed at all times, not far from the breeding

grounds, from five to eight birds, evidently sentinels, sitting upon the water with their heads high, ever upon the lookout and ready to give the alarm, but slow to leave their station,—in fact never leaving the little bay, but taking good care to keep out of reach. As soon as I passed by, the birds, frightened from their nests, would cautiously but quickly return and join the sentinels, from which point they would dive and come up within the rushes. In no instance did I see them swim to or from their nests; they may, however, do so when not disturbed.

As papers of this character are written solely to present the observations and views of different writers in order that in the end the history of the subject may be known and correctly given, I will say that Mr. H. W. Henshaw, in a paper of like character (*Am. Nat.*, V, 1874, p. 243), states that he found the birds nesting in similar lakes in Southern Colorado, but I think he is somewhat in error in the conclusions reached, as given in the following statement: "The eggs were wholly concealed from view by a pile of weeds and other vegetable material laid across. That they were thus carefully covered merely for concealment I cannot think, since in the isolated position in which these nests are usually found, the bird has no enemy against which such precautions would avail. On first approaching the locality the Grebes were all congregated at the further end of the pond, and shortly betook themselves through an opening to the neighboring slough; nor, so far as I could ascertain, did they again approach the nests during my stay of three days. Is it not then possible that they are more or less dependent for the hatching of their eggs upon the artificial heat induced by the decaying vegetable substances of which the nests are wholly composed?"

Surely the birds *have* enemies in the vicinity, especially in the Hawks and Gulls that would quickly notice the eggs if uncovered. In the grass, not fifty feet from the nests I have described, a Marsh Hawk (*Circus hudsonius*) was found sitting upon five eggs. I also noticed several Hawks in the vicinity, and several Ring-billed Gulls (*Larus delawarensis*) were skimming over and about the lake. Further, I do not think it "possible" to create artificial heat from the slow decay of the vegetable matter composing the nests, resting as they do in and upon the ice-cold water, the eggs often touching the same. Before wading out to the nests I removed my boots and socks, and during the short time I was

in the water my feet and limbs were painfully cold. Colorado lies farther south, and the elevation is not so great, but the waters are made largely from the melting snows, and must be cold so early in the season. I am inclined to think rather that at the time the birds were first discovered the males, and hen birds not mated or laying, were near their nesting grounds, and that those on their nests, after covering their eggs, dove off, came up in the flock and swam away with it, returning one by one when the cause for alarm was removed. By swimming under water, with only the bill out at times to breathe (a well known habit of the birds), they could easily reach their nests unnoticed. Or it may be, as Mr. Henshaw only found three eggs in a nest—four to five being a full set—that none of the birds were sitting. In this case there would be no necessity for a hurried return, as absence during the day would do no harm.

BIRDS OF THE LOWER URUGUAY.

BY WALTER B. BARROWS.

(Continued from *Bull. Nutt. Orn. Club, Vol. VIII. p. 212.*)

94. *Drymornis bridgesi* Eytou. CARPINTERO (CARPENTER, WOODPECKER,—from its similarity in some respects to these birds).—Resident and abundant at Concepcion, where it undoubtedly breeds, though I was not fortunate enough to find the nest.

The birds are somewhat gregarious, being oftenest seen in small parties of six to ten. They sometimes cling against the bark of a tree in the manner of Woodpeckers, but also spend much of their time on the ground. Though extremely similar in general structure to the following species, I think they use the curved bill (3 or 4 inches in length) much oftener for probing in the ground than for searching the bark of trees, as many of those shot had the base of the bill and the frontal feathers plastered with mud. In the stomach of the first one killed I